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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,922	03/23/2004	David Paul Boden	5432/55399	3876

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Timothy T. Patula
Patula & Associates, P.C.
14th Floor
116 S. Michigan Avenue
Chicago, IL 60603

EXAMINER

CREPEAU, JONATHAN

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/806,922

Applicant(s)

BODEN ET AL.

Examiner

Jonathan S. Crepeau

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-22 and 33 is/are allowed.
- 6) ☒ Claim(s) 1-11, 23-32 and 34-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/20/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Suggestions

1. In claims 9 and 10, "the TTBLs crystals" lacks proper antecedent basis. Appropriate correction is suggested but not required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 23-26, 28-32, 35, and 36 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a dried TTBLs product used as a battery paste additive, does not reasonably provide enablement for a chemical composition that comprises several components in addition to a TTBLs product used as a battery paste additive. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. Throughout the specification, for example at page 9, line 18; page 10, line 6; page 11, line 9; page 13, line 8, it is disclosed that the dried, micronized TTBLs product is used as a battery paste additive. There is no disclosure or suggestion that the chemical composition used to make the TTBLs product can be used as a battery paste additive. However, the instant claims use language permitting the latter possibility. For example, in claim 28, it is believed that the

recitation of “tetra basic lead sulfate chemical composition” is improper because it is only tetra basic lead sulfate (not a composition thereof) that is subsequently added to the battery paste mix. Claim 30 recites “a battery paste additive” comprising three substances in addition to tetrabasic lead sulfate. As the term “battery paste additive” is best understood in the present application, the claimed combination of substances is not disclosed as being useful as a “battery paste additive.” Correction of these issues is required. Although independent claims 1 and 4 have not been included in this rejection, it is noted that the “composition” defined by the claims is not actually used “for addition to battery plate pastes” as set forth in the preambles of the claims.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 2, 3, 5, 27, 35, and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites “The composition of Claim 2,” and should be amended to depend from claim 1.

Claim 2 further recites “wherein the lead oxide and the sulfuric acid react to form tetra basic lead sulfate crystals.” Claim 5 contains a similar recitation. However, it is submitted that

these recitations render claims 2 and 5 indefinite. It is not clear if the reaction product must actually be present in the claimed composition, or if the product may be formed at a future time. Herein, the recitations will be treated as method steps that result in product formation at a future time and therefore will be accorded little patentable weight.

In claim 27, “the first substrate” and “the second substrate” should be changed to “the first substance” and “the second substance.”

Claims 35 and 36 recite “the composition claimed in claim 23 [24]”, however, claims 23 and 24 are each drawn to a battery paste. Correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-11, 23-26, 28-30, 32, and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen (U.S. Pre-Grant Publication No. 2002/0124388). Chen is directed to lead-acid batteries. A composition for future use as an electrode paste comprises lead oxide, water, and sulfuric acid (see paragraphs 10 and 22). As the materials react, tetrabasic lead sulfate (TTBLS) is formed and becomes part of the composition. The lead oxide may comprise

orthorhombic lead oxide. Regarding claims 9 and 11, the TTBLS is considered to be “micronized” since its crystal size is about 2-4 microns (see paragraph 28). Regarding claim 10, the sulfuric acid is added to the lead oxide/water composition (see paragraph 22). Regarding claims 23, 24, and 28, the composition is added into a polymer (i.e., battery paste mix) to form a battery paste (see paragraph 23). Regarding claims 25 and 26, these claims recite the future intended use of the battery paste (in positive and negative battery plates) and are given little patentable weight. Regarding claim 34, this claim is directed a battery plate made by the method of claim 33. Claim 33 recites a curing step, which is not taught by Chen. Although the reference does not teach the claimed process limitations, the patentability of a product does not depend on its method of production. If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See also MPEP §2113. Accordingly, claim 34 is not considered to be distinguished over Chen.

8. Claims 1-8, 10, 30, 32, and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Biagetti (U.S. Patent 3,765,943). Biagetti is directed to lead-acid batteries. A composition for future use as an electrode paste comprises lead oxide, water, and sulfuric acid (see col. 3, line 55). As the materials react, tetrabasic lead sulfate (TTBLS) is formed and becomes part of the composition. The lead oxide may comprise orthorhombic lead oxide. Regarding claim 10, the sulfuric acid is added to the lead oxide/water composition (see col. 4, line 14). Regarding claim

34, this claim is directed a battery plate made by the method of claim 33. Claim 33 recites a step of mixing micronized tetra basic lead sulfate with a battery paste mix. However, although the reference does not teach the claimed process limitations, the patentability of a product does not depend on its method of production. If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See also MPEP §2113. Accordingly, claim 34 is not considered to be distinguished over Biagetti.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 31, 35, and 36 rejected under 35 U.S.C. 103(a) as being unpatentable over Chen.

The reference is applied to claims 1-11 23-26, 28-30, 32, and 34 for the reasons stated above. However, the reference does not expressly teach the weight percentages recited in the instant claims.

However, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the artisan would be motivated to modify the weight percentages of the components in order to affect the reaction rate, among other things. It has been held that the discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art. *In re Boesch*, 205 USPQ 215 (CCPA 1980).

Allowable Subject Matter

11. Claims 12-22 and 33 are allowed.
12. Claim 27 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

13. The following is a statement of reasons for the indication of allowable subject matter:

Independent claims 12 and 27 are directed to methods which recite, among other steps, the step of mixing a tetra basic lead sulfate complexing agent with other substances. Neither Chen nor Biagetti teach or fairly suggest this step.

Claim 33 recites the step of curing the battery paste. Chen, the closest prior art, teaches away from curing its plates and therefore does not fairly suggest the claimed subject matter.

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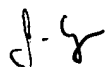
Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Crepeau whose telephone number is (571) 272-1299.

The examiner can normally be reached Monday-Friday from 9:30 AM - 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr, can be reached at (571) 272-1414. The phone number for the organization where this application or proceeding is assigned is (571) 272-1700. Documents may be faxed to the central fax server at (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jonathan Crepeau
Primary Examiner
Art Unit 1746
November 14, 2005